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Low-current electric arc in the open air between the end of the cathode and long vertical anode

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Abstract

© Published under licence by IOP Publishing Ltd. The electrical discharge was investigated experimentally in the open atmosphere at currents less than 1 A. The cylindrical rods and flat plates were used as anode. They were installed in front of the cathode rod vertically or obliquely. The modes in which the discharge makes regular self-oscillations were detected. Electric field intensity in the discharge column and the electron temperature were calculated.

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